IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	§	Confirmation No.: 9027
Gopal B. Avinash	§	
	§	Group Art Unit: 2624
Serial No.: 10/723,189	§	
	§	Examiner: Motsinger, Sean T.
Filed: November 26, 2003	§	
	§	
For: Method and Apparatus for	§	Atty. Docket: GEMS:0259
Segmentation-Based Image Operations	§	136854-1GS
	§	

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal mailed on November 20, 2007, and received by the Patent Office on November 26, 2007.

The Commissioner is authorized to charge the requisite fee of $510.00, and any additional fees which may be necessary to advance prosecution of the present application, to Account No. 07-0845, Order No. 136854-1GS/YOD/RAR.

1. **REAL PARTY IN INTEREST**

The real party in interest is GE Medical Systems Global Technology Company, LLC, the Assignee of the above-referenced application by virtue of the Assignment recorded at reel 14753, frame 0963, and dated November 26, 2003. Accordingly, GE Medical Systems Global Technology Company, LLC will be directly affected by the Board's decision in the pending appeal.

2.   **RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellants' legal representative in this Appeal.

3.   **STATUS OF CLAIMS**

Claims 1-2, 4-7, 9-15, and 17-29 are currently pending, are currently under final rejection and, thus, are the subject of this Appeal. Claims 3, 8, and 16 have previously been canceled.

4.   **STATUS OF AMENDMENTS**

As the instant claims have not been amended subsequent to the Final Office Action mailed August, 23, 2007, there are no outstanding amendments to be considered by the Board.

5.   **SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates generally to the field of image processing and image segmentation. *See, e.g.,* Application at page 1, lines 6-7. More particularly, the invention relates to a technique for processing image data that permits more flexible processing of the image data to render the processed images more clear, intuitive and useful. *See, e.g., id.* at page 1, lines 7-9. The Application contains seven independent claims, namely, claims 1, 11, 20, and 24-27, all of which are the subject of this Appeal. The subject matter of these claims is summarized below.

With regard to the aspect of the invention set forth in independent claim 1, discussions of the recited features of claim 1 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 1 generally recites a method (*e.g.,* 32) for processing image data (*e.g.,* 34). *See, e.g., id.* at page 7, lines 1-10; *see also,* FIG. 2. The method includes: identifying a first group of pixels exhibiting a first characteristic, wherein the first characteristic corresponds to structures (*e.g.,* 54) in the image data; identifying a second group of pixels exhibiting a second characteristic, wherein

the second characteristic corresponds to non-structures (*e.g.*, 56) in the image data; and identifying a third group of pixels exhibiting the first and second characteristics (*e.g.*, 58). *See, e.g., id.* at page 8, lines 14-28; *see also*, page 9, line 15 to page 10, line 7; *see also*, FIG. 3. The method further includes: processing the first group of pixels in accordance with at least a first operation (*e.g.*, 60); processing the second group of pixels in accordance with at least a second operation (*e.g.*, 62); and processing the third group of pixels in accordance with the at least first and second operations. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also*, FIGS. 3, 5-7. The method further includes blending values (*e.g.*, 64) resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process. *See, e.g., id.* at page 12, line 29 to page 13, line 2; *see also*, FIG. 3.

With regard to the aspect of the invention set forth in independent claim 11, discussions of the recited features of claim 11 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 11 generally recites a method (*e.g.*, 32) for processing image data (*e.g.*, 34). *See, e.g., id.* at page 7, lines 1-10; *see also*, FIG. 2. The method includes establishing first and second thresholds. *See, e.g., id.* at page 9, lines 19-24; *see also*, FIG. 4. The method further includes: identifying a first group of pixels having a value falling above the first threshold, wherein the first threshold corresponds to structures in the image data; and identifying a second group of pixels having a value falling below the second threshold, wherein the second threshold corresponds to non-structures in the image data. *See, e.g., id.* at page 9, lines 24-26; *see also*, FIG. 4. The method further includes identifying a third group of pixels having a value between the first and second thresholds. *See, e.g., id.* at page 9, lines 26-28; *see also*, FIG. 4. The method further includes: processing the first group of pixels (e.g., 54) in accordance with at least a first operation (e.g., 60); processing the second group of pixels (e.g., 56) in accordance with at least a second operation (e.g., 62); and processing the third group of pixels (e.g., 58) in accordance with the at least first and second operations. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also*, FIGS. 3, 5-7.

With regard to the aspect of the invention set forth in independent claim 20, discussions of the recited features of claim 20 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 20 generally recites a system (e.g., 10) for processing image data (e.g., 34). *See, e.g., id.* at page 4, lines 15-30; *see also*, FIGS. 1, 2. The system includes a data repository (e.g., 24) for storing image data. *See, e.g., id.* at page 5, lines 21-25; *see also*, FIG. 1. The system further includes a processing circuit (e.g., 26) configured to access image data from the repository. *See, e.g., id.* at page 6, lines 3-9; *see also*, FIG. 1. The processing circuit is also configured to separate the data representative of pixels into first (e.g., 54) and second groups (e.g., 56) and an overlapping group (e.g., 58), to process the first and second groups in accordance with first and second operations, respectively, and to process the third group in accordance with both the first and second operations. *See, e.g., id.* at page 7, lines 6-26; *see also,* page 10, lines 14 to page 11, line 5; *see also,* FIGS. 1, 3, 5-7. Further, the processing circuit combines (e.g., 66) the results of the processing to obtained processed image data, wherein the first group corresponds to structures in the image data and the second group corresponds to non-structures in the image data. *See, e.g., id.* at page 12, line 26 to page 13, line 2; *see also,* FIG. 3.

With regard to the aspect of the invention set forth in independent claim 24, discussions of the recited features of claim 24 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 24 generally recites a system (e.g., 10) for processing image data (e.g., 34). *See, e.g., id.* at page 4, lines 15-30; *see also,* FIG. 1. The system includes: means for identifying a first group of pixels exhibiting a first characteristic, wherein the first characteristic corresponds to structures (e.g., 54) in the image data; means for identifying a second group of pixels exhibiting a second characteristic, wherein the second characteristic corresponds to non-structures (e.g., 56) in the image data; and means for identifying a third group of pixels exhibiting the first and second characteristics (e.g., 58). *See, e.g., id.* at page 8, lines 14-28; *see also,* page 9, line 15 to page 10, line 7; *see also,* FIG. 3. The system also includes: means for processing the first group of pixels in accordance with at least a first operation (e.g., 60); means for

processing the second group of pixels in accordance with at least a second operation (e.g., 62); and means for processing the third group of pixels in accordance with the at least first and second operations. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also,* FIGS. 3, 5-7. The system also includes means for blending values (e.g., 64) resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process. *See, e.g., id.* at page 12, line 29 to page 13, line 2; *see also,* FIG. 3.

With regard to the aspect of the invention set forth in independent claim 25, discussions of the recited features of claim 25 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 25 generally recites a system (e.g., 10) for processing image data (e.g., 34). *See, e.g., id.* at page 4, lines 15-30; *see also,* FIGS. 1, 2. The system includes means for establishing first and second thresholds. *See, e.g., id.* at page 9, lines 19-24; *see also,* FIG. 4. The system also includes: means for identifying a first group of pixels having a value falling above the first threshold characteristic, wherein the first threshold corresponds to structures in the image data; and means for identifying a second group of pixels having a value falling below the second threshold characteristic, wherein the second threshold corresponds to non-structures in the image data. *See, e.g., id.* at page 9, lines 24-26; *see also,* FIG. 4. The system also includes means for identifying a third group of pixels having a value between the first and second thresholds. *See, e.g., id.* at page 9, lines 26-28; *see also,* FIG. 4. The system also includes: means for processing the first group of pixels in accordance with at least a first operation (e.g., 60); means for processing the second group of pixels in accordance with at least a second operation (e.g., 62); and means for processing the third group of pixels in accordance with the at least first and second operations. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also,* FIGS. 3, 5-7.

With regard to the aspect of the invention set forth in independent claim 26, discussions of the recited features of claim 26 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 26 generally recites a computer storage medium (e.g., 24) storing therein a computer program for processing image data (e.g., 34). *See, e.g., id.* at page 5, line 30 to page 6, line 6; *see also,* FIGS. 1, 2. The computer program further includes machine readable code stored on the at least one medium for carrying out routines for identifying a first group of pixels exhibiting a first characteristic (e.g., 54), identifying a second group of pixels exhibiting a second characteristic (e.g., 56), identifying a third group of pixels exhibiting the first and second characteristics (e.g., 58). *See, e.g., id.* at page 8, lines 14-28; *see also,* page 9, line 15 to page 10, line 7; *see also,* FIG. 3. The computer program further includes machine readable code stored on the at least one medium for carrying out routines for processing the first group of pixels in accordance with at least a first operation (e.g., 60), processing the second group of pixels in accordance with at least a second operation (e.g., 62), processing the third group of pixels in accordance with the at least first and second operations. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also,* FIGS. 3, 5-7. The computer program further includes machine readable code stored on the at least one medium for carrying out routines for blending values (e.g., 64) resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process, wherein the first characteristic corresponds to structures in the image data and the second characteristic corresponds to non-structures in the image data. *See, e.g., id.* at page 12, line 26 to page 13, line 2; *see also,* FIG. 3.

With regard to the aspect of the invention set forth in independent claim 27, discussions of the recited features of claim 27 can be found at least in the below cited locations of the specification and drawings. By way of example, claim 27 generally recites a computer storage medium (e.g., 24) storing therein a computer program for processing image data (e.g., 34). *See, e.g., id.* at page 5, line 30 to page 6, line 6; *see also,* FIGS. 1, 2. The computer program further includes machine readable code stored on the at least one medium for carrying out routines for establishing first and second thresholds,

identifying a first group of pixels having a value falling above the first threshold, identifying a second group of pixels having a value falling below the second threshold, identifying a third group of pixels having a value between the first and second thresholds. *See, e.g., id.* at page 9, lines 19-28; *see also,* FIG. 4. The computer program further includes machine readable code stored on the at least one medium for carrying out routines for processing the first group of pixels in accordance with at least a first operation (e.g., 60) processing the second group of pixels in accordance with at least a second operation (e.g., 62), and processing the third group of pixels in accordance with the at least first and second operations, wherein the first threshold corresponds to structures in the image data and the second threshold corresponds to non-structures in the image data. *See, e.g., id.* at page 10, line 14 to page 11, line 5; *see also,* page 12, line 26 to page 13, line 2; *see also,* FIGS. 3, 5-7.

6.   **GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**
        First Ground of Rejection for Review on Appeal:
        Whether the Examiner has met his burden in establishing that claims 26-29 are unpatentable under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

        Second Ground of Rejection for Review on Appeal:
        Whether the Examiner has met his burden in establishing that claims 1-2, 4-7, 9-15, and 17-29 are unpatentable under 35 U.S.C. §102(b) over Fan et al., U.S. Publication No. 2002/0093686 (hereinafter "Fan").

7.   **ARGUMENT**
        As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under Section 102. Accordingly, Appellants respectfully request full and favorable consideration by the Board, as Appellants strongly believe that claims 1-2, 4-7, 9-15, and 17-29 are currently in condition for allowance.

A.   **Ground of Rejection No. 1:**

The Examiner rejected claims 26-29 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Appellants respectfully traverse this rejection.

Legal Precedent

According to the Supreme Court, congress intended statutory subject matter to "include anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09; 206 U.S.P.Q. 193, 197 (1980). Further, the Court stated that manufactures are patentable and defined manufacture as "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Id.* Indeed, exclusions of statutory subject matter are limited to laws of nature, natural phenomena and abstract ideas. *See Diamond v. Diehr,* 450 U.S. 175, 185; 209 U.S.P.Q. 1, 7 (1981). Other than these specific exceptions, therefore, nearly anything man made is statutorily patentable subject matter under 35 U.S.C. §101.

Deficiencies of the Rejection of Claims 26-29

In the Final Office Action, the Examiner rejected claims 26-29 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Appellants note that, in the Advisory Action discussion of claims 26 and 27, the Examiner stated, "Regarding the 35 U.S.C. 101 rejection, first applicant is correct in his and that claims 26–27 should not have such a rejection these claims were cited under 35 U.C.C. 101 [*sic*] because of a typo and the rejection does not apply to these claims." Advisory Action, p. 2. Therefore, Appellants understand that the rejection of claims 26 and 27 under 35 U.S.C. §101 has been withdrawn by the Examiner per the Advisory Action.

With respect to claims 28 and 29, the Examiner stated that they "claim an image which is merely data and therefore has no functional relationship." Final Office Action, p. 4. Claims 28 and 29 generally recite, a computer memory device (i.e., machine) storing an image. These claims are directed toward a device, they are not merely directed toward data, such as an image, as asserted by the Examiner. According to legal precedent, devices are recognized as patentable subject matter. Therefore, image data stored on a computer memory device, as described in claims 28 and 29, is patentable because it results in a transformation of the memory device, which is a manufacture. For at least these reasons among others, Appellants respectfully request withdrawal of these rejections under 35 U.S.C. §101.

B.   **Ground of Rejection No. 2:**

The Examiner rejected claims 1-2, 4-7, 9-15, and 17-29 under 35 U.S.C. §102(b) as being anticipated by Fan. Appellants respectfully traverse this rejection.

Legal Precedent

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). Thus, for a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the *identical* invention "*in as complete detail as contained in the ... claim*" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Appellants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Further, during patent examination, the interpretation of the pending claims must be consistent with the interpretation that <u>one of ordinary skill in the art</u> would reach. *See In re Cortright*, 165 F.3d 1353, 1359, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); M.P.E.P. §2111. "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." *See Collegenet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 75 U.S.P.Q.2d 1733, 1738 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 75 U.S.P.Q.2d 1321, 1326). The pending claims must be given an interpretation that is reasonable and consistent with the <u>specification</u>. *See In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added). Indeed, the specification is "the primary basis for construing the claims." *See Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely <u>heavily</u> on the written description for guidance as to the meaning of the claims. *See id.*

Deficiencies of the Rejection of Claims 1, 11, 20, and 24-27

As stated above, independent claims 1, 11, 20, and 24-27, each generally recite that two distinct processes are performed exclusively on two groups of pixels and that <u>both</u> processes are performed on a third group of pixels. The Fan reference appears to disclose performing the <u>same</u> operation on all input pixel values, i.e., applying contrast-weighted low pass and notch filters to each pixel. *See* Fan p. 2, para. 20-24. In other words, the Fan reference appears to disclose a method that performs <u>one process (the weighted application of low pass and notch filters) on all pixels</u> – not a method that has distinct operations performed exclusively on at least two of three groups of pixels.

However, the Examiner proposes that the assignment of a weighting value of one or zero to areas of low contrast or high contrast, respectively, to Equation 1 in Fan results in only one operation being performed on either low or high contrast pixels. Advisory Action, p. 2. In particular, the Examiner's position appears to be that the application of a weighted variable of zero to one or both operations, the low

pass filter and the high pass filter of Equation 1, results in a zero filter value for the respective operation <u>when the weighted variable is equal to zero</u>. *See* Fan, par. 20-25.

Conversely, it appears clear that the technique of the Fan reference still applies <u>one process</u> (i.e., the application of <u>both</u> low pass and notch filters) <u>to all pixels</u> even in the Examiner's construction. In the Examiner's extreme scenario, the local contrast weighting results in a low-pass filter value of zero in certain cases and a notch filter value of zero in other cases. However, there is no indication in Fan that in these extreme scenarios both filtering operations are not applied, just that the <u>result</u> of the operations is zero. This understanding is supported by the Fan reference itself which clearly states that the weighting variable may range anywhere from zero to one. *See* Fan, par. 20. Clearly zero weightings would not be needed or contemplated if the filters were not applied, i.e., if the operation were not performed, in such extreme scenarios. In view of these deficiencies of the Fan reference, Appellants respectfully assert that each and every element of independent claims 1, 11, 20, and 24-27 is not disclosed in the Fan reference. Furthermore, those claims depending from independent claims 1, 11, 20, and 24-27 are believed to be allowable at least for their dependence from their respective independent claims.

Moreover, contrary to legal precedent (e.g., the *Phillips* and *Cortright* cases discussed above), the Examiner has failed to construct the claims consistent with the specification and as one of ordinary skill in the art would. Instead, the Examiner has improperly assumed a position in contrast with the plain language of the claims. In particular, independent claims 1, 11, 20, and 24-27 recite, in generally similar language, processing a first group of pixels in accordance with at least a first operation, processing a second group of pixels in accordance with at least a second operation, and processing a third group of pixels in accordance with the at least first and second operations. This is further clarified by reference to the present application where it is explained that two distinct operations are contemplated and are performed exclusive of one another on at least two

of the groups of pixels, then both of the operations are performed on a third group of pixels. *See, e.g.,* Application, page 10, lines 13-19, Fig. 3.

In spite of the apparent sufficiency of the claim language and of the discussion in the specification, the Examiner has taken the position that the recited first and second operations can be the same operation. Advisory action, page 2. However, such a position is incompatible with plain language of the claims, in particular, the recitations that <u>at least the first and second operations</u> are performed on the third group of pixels. This language would be superfluous if the first and second operations could be identical, as posited by the Examiner. Therefore, the interpretation asserted by the Examiner is unreasonable at least in view of the plain language of the pending independent claims.

Conclusion

Appellants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner or Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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8. **APPENDIX OF CLAIMS ON APPEAL**

Listing of Claims:

1. A method for processing image data comprising:

identifying a first group of pixels exhibiting a first characteristic, wherein the first characteristic corresponds to structures in the image data;

identifying a second group of pixels exhibiting a second characteristic, wherein the second characteristic corresponds to non-structures in the image data;

identifying a third group of pixels exhibiting the first and second characteristics;

processing the first group of pixels in accordance with at least a first operation;

processing the second group of pixels in accordance with at least a second operation;

processing the third group of pixels in accordance with the at least first and second operations; and

blending values resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process.

2. The method of claim 1, comprising combining the blended values with values of pixels from the first and second groups resulting from their respective processing.

4. The method of claim 1, comprising establishing first and second thresholds, and wherein the first group of pixels are identified as having values falling above the first threshold, the second group of pixels are identified as having values falling below the second threshold, and the third group of pixels are identified as having values between the first and second thresholds.

5. The method of claim 4, wherein the thresholds are gradient thresholds.

6.   The method of claim 4, wherein the blending is performed based upon relative proximity of each pixel value to the first and the second threshold.

7.   The method of claim 6, wherein the blending is based on a linear function.

9.   The method of claim 1, wherein the operations are selected from a group consisting of enhancement, sharpening, smoothing, deconvolution, extrapolation, interpolation, compression, digital half-toning, and contrast matching.

10.   The method of claim 1, wherein the third group of pixels are processed in accordance with the first operation along with the first group of pixels, and are processed in accordance with the second operation along with the second group of pixels.

11.   A method for processing image data comprising:
       establishing first and second thresholds;
       identifying a first group of pixels having a value falling above the first threshold, wherein the first threshold corresponds to structures in the image data;
       identifying a second group of pixels having a value falling below the second threshold, wherein the second threshold corresponds to non-structures in the image data;

identifying a third group of pixels having a value between the first and second thresholds;

processing the first group of pixels in accordance with at least a first operation;

processing the second group of pixels in accordance with at least a second operation; and

processing the third group of pixels in accordance with the at least first and second operations.

12.   The method of claim 11, comprising blending values resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process.

13.   The method of claim 11, wherein the thresholds are gradient thresholds.

14.   The method of claim 12, wherein the blending is performed based upon relative proximity of each pixel value to the first and the second threshold.

15.   The method of claim 12, wherein the blending is based on a linear function.

17.   The method of claim 11, wherein the operations are selected from a group consisting of enhancement, sharpening, smoothing, deconvolution, extrapolation, interpolation, compression, digital half-toning, and contrast matching.

18.   The method of claim 11, wherein the third group of pixels are processed in accordance with the first operation along with the first group of pixels, and are processed in accordance with the second operation along with the second group of pixels.

19.   The method of claim 11, comprising combining the blended values with values of pixels from the first and second groups resulting from their respective processing.

20.   A system for processing image data comprising:

a data repository for storing image data;

a processing circuit configured to access image data from the repository, to separate the data representative of pixels into first and second groups and an overlapping group, to process the first and second groups in accordance with first and second operations, respectively, and to process the third group in accordance with both the first and second operations, and to combine the results of the processing to obtained processed image data, wherein the first group corresponds to structures in the image data and the second group corresponds to non-structures in the image data.

21.   The system of claim 20, further comprising an operator workstation for configuring the operations and for viewing images resulting from the processing.

22.   The system of claim 20, further comprising an image data acquisition system for generating the image data.

23.   The system of claim 22, wherein the image data acquisition system is selected from a group consisting of MRI systems, CT systems, PET systems, ultrasound systems, X-ray systems and photographic systems.

24.   A system for processing image data comprising:

means for identifying a first group of pixels exhibiting a first characteristic, wherein the first characteristic corresponds to structures in the image data;

means for identifying a second group of pixels exhibiting a second characteristic, wherein the second characteristic corresponds to non-structures in the image data;

means for identifying a third group of pixels exhibiting the first and second characteristics;

means for processing the first group of pixels in accordance with at least a first operation;

means for processing the second group of pixels in accordance with at least a second operation;

means for processing the third group of pixels in accordance with the at least first and second operations; and

means for blending values resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process.

25.   A system for processing image data comprising:

means for establishing first and second thresholds;

means for identifying a first group of pixels having a value falling above the first threshold characteristic, wherein the first threshold corresponds to structures in the image data;

means for identifying a second group of pixels having a value falling below the second threshold characteristic, wherein the second threshold corresponds to non-structures in the image data;

means for identifying a third group of pixels having a value between the first and second thresholds;

means for processing the first group of pixels in accordance with at least a first operation;

means for processing the second group of pixels in accordance with at least a second operation; and

means for processing the third group of pixels in accordance with the at least first and second operations.

26.   A computer storage medium storing therein a computer program for processing image data comprising:

machine readable code stored on the at least one medium for carrying out routines for identifying a first group of pixels exhibiting a first characteristic, identifying a second group of pixels exhibiting a second characteristic, identifying a third group of pixels exhibiting the first and second characteristics, processing the first group of pixels in accordance with at least a first operation, processing the second group of pixels in accordance with at least a second operation, processing the third group of pixels in accordance with the at least first and second operations, and blending values resulting from processing of the third group of pixels by the first process with values resulting from processing of the third group of pixels by the second process, wherein the first characteristic corresponds to structures in the image data and the second characteristic corresponds to non-structures in the image data.

27.   A computer storage medium storing therein a computer program for processing image data comprising:

machine readable code stored on the at least one medium for carrying out routines for establishing first and second thresholds, identifying a first group of pixels having a value falling above the first threshold, identifying a second group of pixels having a value falling below the second threshold, identifying a third group of pixels having a value between the first and second thresholds, processing the first group of pixels in accordance with at least a first operation. processing the second group of pixels in accordance with at least a second operation, and processing the third group of pixels in accordance with the at least first and second operations, wherein the first threshold corresponds to structures in the image data and the second threshold corresponds to non-structures in the image data.

28.   A computer memory device storing an image produced by the method of claim 1.

29.   A computer memory device storing an image produced by the method of claim 11.

9.   **EVIDENCE APPENDIX**

None.

10.   **RELATED PROCEEDINGS APPENDIX**

None.